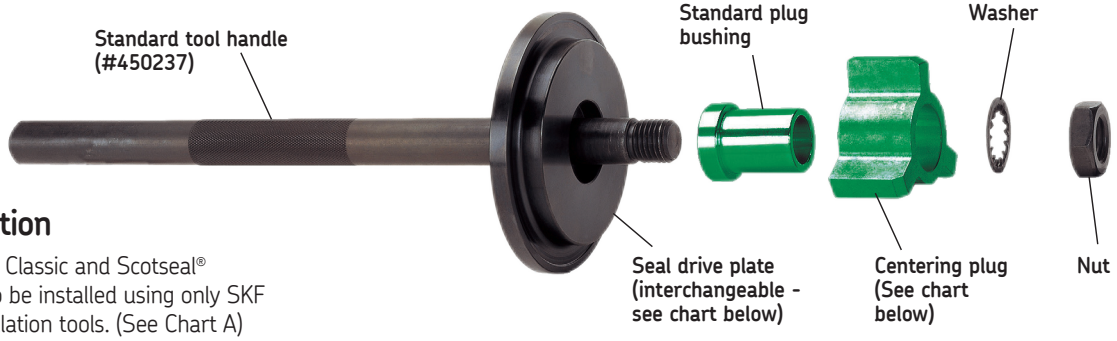
Scotseal® installation tooling guide



Tool selection

SKF Scotseal® Classic and Scotseal® Longlife are to be installed using only SKF Scotseal installation tools. (See Chart A)

Centering the seal

Precisely matched centering plugs are engineered to fit within the inside diameter of the inner bearing cone and allow accurate centering of the Scotseal in the bore of the hub, as well as preventing cocking of the seal. Chart B below provides correct matchup of bearing cone and centering plug.

Chart A
Drive plates & seal matchups

(Drive plates in bold numbers with matching seal numbers)

427	**441**	**451**	**465**
34387	40086	46305	43752
36285		46308	43764
36358	**445**		43800
36365	39380	**452**	
	39420	42623	**473**
428	39425	42624	39380
31175	42550	42631	(w/disc
31244	42672		brks.)
31281	42800	**457**	
31323		40040	**474**
32470	**446**	40136	52658
	43860	40139	
435	43865		**484**
47690	43875	**461**	44922
47693	46390	45152	44964
47696	47483	45160	45010
47697	48690	45162	45099
47698	48794		45103
48000	48796	**462**	
	48884	38747	
436	50124	38750	
34975		38780	
35000	**448**		
35060	38709	**463**	
35066	39988	27438	
35072		28758	
35075	**449**	28820	
35103	47699	28832	

Chart B
Matchup of bearing cones & centering plugs

Bearing cone no.	Centering plug no.	Bearing cone no.	Centering plug no.
495-AX	708	BR5760	708
BR497	711	BR6379	705
BR539	701	BR6386	706
555-S	702	6386-A	706
557-A	703	BR6389	706
BR559	704	BR6461	708
BR560	706	6461-A	708
BR567	707	BR6559	710
BR568	731	BR6580	712
BR575	708	BR28995	703
BR580	710	BR33281	716
BR582	710	BR33287	707
BR593	712	BR33895	701
BR594	715	BR39580	702
594-A	715	BR39581	702
BR595	710	BR39585	704
BR596	711	BR42688	708
BR598	714	BR45284	700
598-A	714	BR45285	700
BR639	704	BR47678	708
BR641	706	BR47686	710
BR659	708	BR47687	710
BR663	710	BR52400	718
663-A	710	BR52401	718
BR664	732	JH217249	719
BR665	711	JM205149-A	722
665-A	711	JM207049-A	723
681-A	714	JM511946	724
BR683	715	JM716649	719
BR687	718	JM718149	713
BR749	719	JM719149	733
749-A	710	HM212044	703
756-A	709	HM212046	704
BR758	711	HM212047	704
BR759	712	HM212049-X	706
BR760	717	HM212049	706
BR776	715	HM215249	707
BR780	718	HM218248	713
BR3778	730	HM516449	710
BR3982	704	HM518445	712
BR3984	706	H715345	716
BR4595	701		
BR5557	721		

Wheel bearing adjustment procedure

Manual adjustment

Step 1: Lubricate the wheel bearing with clean axle lubricant of the same type used in the axle sump or hub assembly.
Note: *Never* use an impact wrench when tightening or loosening lug nuts or bolts during the procedure.

Initial adjusting nut torque	Initial back off	Final adjusting nut torque	Back off			Jam nut torque		Acceptable end play
			Axle type	Threads per inch	Final back off	Nut size	Torque Specifications	
Step 2	Step 3	Step 4		Step 5	Step 6	Step 7		Step 8
200 lb•ft (271N•m) While rotating wheels	One full turn	50 lb•ft (68N•m) While rotating wheels	Steer (front) non-drive	12	1/6 Turn *	Install cotter pin to lock axle nut in position		.001"-.005" (.025mm- .127mm)
				18	1/4 Turn *			
				14	1/2 Turn	Less than 2 5/8" (66.7mm)	200-300 lb•ft (271-407N•m)	
				18				
			Drive	12	1/4 Turn	Dowel type washer	300-400 lb•ft (407-542N•m)	
				16		Tang type washer**	200-275 lb•ft (271-373N•m)	As measured per procedure with dial indicator
			Trailer	12	1/4 Turn	2 5/8" (66.7mm) and over	200-300 lb•ft (271-407N•m)	
				16				

* If dowel pin and washer (or washer tang and nut flat) are not aligned, remove the washer, turn it over, and reinstall. If required, loosen the inner (adjusting) nut just enough for alignment.
** Bendable type washer lock only: Secure nuts by bending one wheel nut washer tang over the inner and outer nut. Bend the tangs over the closest flat perpendicular to the hang.
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PreSet wheel bearing adjustment procedure

ConMet PreSet hub assemblies are equipped with specially, half-toleranced bearings and a spacer, and require a specific bearing adjustment procedure. Use the OEM seal, Scotseal PlusXL, when servicing a PreSet hub assembly.

1) Lubricate the wheel bearing with clean axle lubricant of the same type used in the axle sump or hub assembly. Never use an impact wrench when tightening or loosening lug nuts or bolts during this procedure.

2a) For one-piece spindle nut systems, torque the nut to a minimum of 300 ft. lbs. **Do not back off the spindle nut.** Advance the nut until engagement takes place and the nut is locked.

2b) For a double nut or jam nut system, torque the inner nut to 300 ft. lbs. **Do not back off the spindle nut.** Install the outer nut with 200 ft. lbs. of torque.

Note: Be sure to engage any locking device.

2c) Per ConMet Service Manual, rev E, 12-2010, ConMet does not recommend the use of a one-piece castellated type nut system for use with PreSet hubs.

End play verification procedure

Wheel bearing end play is the free movement of the wheel assembly along the spindle axis. It is recommended, for verification purposes, that wheel bearing end play be measured with a dial indicator.

Step 1 Make sure the brake drum to hub fasteners are tightened to the manufacturers' specifications.

Step 2 Attach a dial indicator with its magnetic base at the bottom of the hub or brake drum.

Step 3 Adjust the dial indicator so that its plunger or pointer is against the end of the spindle with its line of action approximately parallel to the axis of the spindle.

Note: For aluminum hubs, attach the magnetic base of the indicator to the end of the spindle with the plunger against the hub or brake drum.

Step 4 Set the dial indicator to zero by rotating the gauge face so the zero mark lines up with the gauge needle. For digital indicators, push the zero-out button.

Step 5 Grasp the wheel assembly at the 3 o'clock and 9 o'clock positions, while oscillating it to seat the bearings. Read bearing end play as the total indicator movement.

Note: If end play is not within specifications, repeat wheel bearing adjustment procedure until end play is within proper range.

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